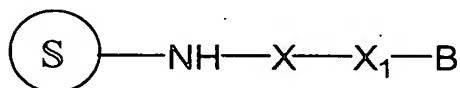
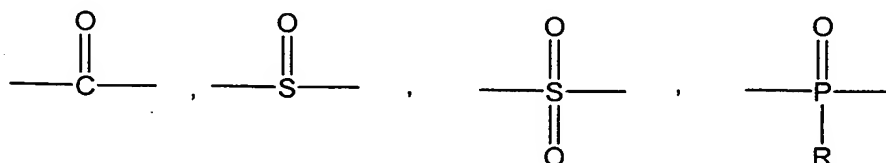


# ABSTRACT

This invention provides a system for immobilizing biological molecules onto a solid support having an available amino group that uses two steps. In a first step, a nucleophilic substitution reaction occurs so that the available amino group displaces a first leaving group of an activating compound to form an activated support. In a second step, the activated support reacts with biological molecules resulting in a composition of the formula:



wherein S is a solid support, preferably X is selected from the group consisting of



wherein R is selected from the group consisting of alkyl, aryl, and  $\text{OR}^1$  having no greater than about 18 carbon atoms,

wherein  $\text{R}^1$  is selected from the group consisting of alkyl and aryl having no greater than about 18 carbon atoms,

wherein  $\text{X}_1$  is selected from the group consisting of NH, oxygen, and sulfur, and wherein B is a biological molecule.